

**July 2015** 

## **Phillips County**

## Estimated Economic Impact of Agriculture, Food, and Food Processing Sectors

A total of 15 agriculture, food, and food processing sectors were analyzed to determine their overall contribution to the Phillips County economy.<sup>1</sup> These 15 sectors have a total direct output of approximately \$158 million and support 606.0 jobs in Phillips County. Running the model for all 15 sectors simultaneously produces the following results:

Agriculture Contribution in Phillips County

				% of Gross		% of Gross
		% of Total	Total	Regional		Regional
Impact Type <sup>2</sup>	Employment	Employment	Value Added <sup>3</sup>	Product <sup>4</sup>	Output <sup>5</sup>	Product
Direct Effect	606.0	15%	\$58,445,208	19%	\$158,326,900	51%
Indirect Effect	210.2	5%	\$13,373,903	4%	\$22,843,018	7%
Induced Effect	87.9	2%	\$5,516,179	2%	\$9,903,326	3%
Total Effect	904.1	23%	\$77,335,290	25%	\$191,073,245	62%

As shown in the above table, agriculture, food, and food processing supports 904.1 jobs, or 23% of the entire workforce in the county. These industries provide a total economic contribution of approximately \$191 million, roughly 62% of Gross Region Product (GRP). As noted below in the calculation of Gross Regional Product, imports and institutional sales are subtracted. Therefore, counties that import a relatively large amount of goods and services will have a reduced GRP which may lead to agricultural output being greater than GRP.

Another metric used to calculate the importance of sectors in an economy is their value added as a percentage of GRP. Total value added by the 15 agriculture, food, and food processing sectors is approximately \$77 million, or 25% of the GRP. This indicates that personal income, business income, and taxes generated by these sectors account for 25% of the total economy.

The following tables document the overall summary numbers of the model, top industries affected by employment and output, and a listing of all industries that were analyzed.

<sup>1</sup> Article on building a contribution analysis in IMPLAN that avoids double counting: <a href="https://implan.com/index.php?option=com\_content&view=category&id=19">https://implan.com/index.php?option=com\_content&view=category&id=19</a>

<sup>2</sup> Direct, indirect, and induced effects sum together to estimate the total economic contribution in the state. **Direct effects** capture the contribution from agricultural and food products. **Indirect effects** capture the economic benefit from farms and agricultural businesses purchasing inputs from supporting industries within the state. **Induced effects** capture the benefits created when employees of farms, agricultural businesses, and the supporting industries spend their wages on goods and services within the state.

<sup>3</sup> Value Added = Labor Income + Indirect Business Taxes + Other Property Type Income

<sup>4</sup> GRP = Final Demand of Households + Governments Expenditures + Capital + Exports - Imports - Institutional Sales

<sup>5</sup> Output = Intermediate Inputs + Value Added

In the top ten by employment, Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming is the top employer in the agriculture industry with 177.4 employees. This table also shows the amount of jobs that are created by the agriculture industry in Phillips County.

Top 10 Industries Affected by Employment

	Total	Total
Sector Description:	Employment	Output
Beef cattle ranching and farming, including feedlots and dual-purpose ranching		
and farming	177.4	\$55,793,760
Animal production, except cattle and poultry and eggs	100.6	\$12,369,170
Support activities for agriculture and forestry	98.7	\$6,175,211
Grain farming	89.5	\$38,030,652
All other crop farming	89.1	\$13,731,052
Landscape and horticultural services	81.8	\$5,167,839
Wholesale trade	26.8	\$5,128,296
Dairy cattle and milk production	26.8	\$6,060,507
Truck transportation	23.4	\$3,162,560
Monetary authorities and depository credit intermediation	16.3	\$2,609,051

The Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming industry directly contributes approximately \$56 million to Phillips County's economy. This table also shows how much revenue is generated in other industries by having a strong agriculture industry.

Top 10 Industries Affected by Output

	Total	Total
Sector Description:	Employment	Output
Beef cattle ranching and farming, including feedlots and dual-purpose ranching		
and farming	177.4	\$55,793,760
Grain farming	89.5	\$38,030,652
All other crop farming	89.1	\$13,731,052
Animal production, except cattle and poultry and eggs	100.6	\$12,369,170
Oilseed farming	3.9	\$10,133,604
Animal, except poultry, slaughtering	13.0	\$7,467,077
Support activities for agriculture and forestry		\$6,175,211
Dairy cattle and milk production	26.8	\$6,060,507
Landscape and horticultural services	81.8	\$5,167,839
Wholesale trade	26.8	\$5,128,296

Below is a summary of all agriculture data with employment levels and output level. These values can tell how many jobs are represented by each agriculture sector and the output they contributed to Phillips County's economy.

Sector Description:	Employment	Output
Oilseed farming	3.9	\$10,133,604
Grain farming	89.5	\$38,030,652
Vegetable and melon farming		\$109,123
All other crop farming	89.1	\$13,731,052
Beef cattle ranching and farming, including feedlots and dual-purpose ranching		" )
and farming	177.4	\$55,793,760
Dairy cattle and milk production	26.8	\$6,060,507
Poultry and egg production	0.6	\$356,622
Animal production, except cattle and poultry and eggs	100.6	\$12,369,170
Other animal food manufacturing	1.7	\$2,459,436
Animal, except poultry, slaughtering	13.0	\$7,467,077
Bread and bakery product, except frozen, manufacturing		\$661,383
Fiber, yarn, and thread mills		\$1,119,644
Farm machinery and equipment manufacturing		\$4,731,520
Veterinary services		\$135,511
Landscape and horticultural services	81.8	\$5,167,839

All 105 counties in Kansas have IMPLAN models with an agriculture contribution summary. These values do not factor in the retail environment of food sales. Food retail is important, but in order to provide the most accurate picture of what production agricultural and processing contributes to Kansas, the retail sector was omitted.